What is claimed is:

1.   A computer based method for evaluating a graphic image file for the presence of objectionable visual content, the graphic image file comprising a number of pixels each having spectral components defined in accordance with a color model, the method comprising steps of:

       (a) evaluating relative weighting of the spectral components of each pixel in turn to classify each said pixel as either not representing human skin or as possibly representing human skin; and

       (b) processing the graphic image file in relation to the resulting classification of each said pixel during the evaluating step (a).

2.   The method of claim 1, wherein the processing step (b) comprises steps of:

       (b1) allowing display of the graphic image file when all pixels evaluated during the operation of evaluating step (a) are classified as not representing human skin; and

       (b2) disallowing display of the graphic image file when at least one pixel evaluated during the operation of evaluating step (a) is classified as possibly representing human skin.

3.   The method of claim 1, wherein the spectral components of each pixel are expressed as a set of numbers each number having an associated numeric value, and wherein the evaluating step (a) comprises steps of:

       (a1) generating a set of rules that identify a selected pixel as not representing human skin in relation to the numeric values of the set of numbers; and

       (a2) applying the set of rules to the numeric values of the set of numbers for each pixel.

4.   The method of claim 1, wherein the color model comprises an RGB

color model so that the spectral components of each pixel are expressed as a set of red, green and blue (R, G, B) components corresponding to the respective amounts of red, green and blue in each pixel.

5.   The method of claim 4, wherein each of the (R, G, B) components has a numeric value ranging from m to n, and wherein the evaluating step (a) comprises a step of comparing the respective numeric values of the (R, G, B) components.

6.   The method of claim 5, wherein said pixel is classified as not representing human skin when at least one of the following conditions is satisfied:
    the numeric value of the blue component is greater than the numeric value of the red component;
    the numeric value of the blue component is greater than the numeric value of the green component;
    the numeric value of the green component is greater than the numeric value of the red component;
    the numeric value of the green component is greater than the numeric value of the red component;
    the numeric value of the blue component is less than one-quarter the numeric value of the red component; and
    the numeric value of the blue component exceeds a threshold T.

7.   The method of claim 1, further comprising steps of:
    (c) performing a brightness analysis of each set of adjacent pixels classified as possibly representing human skin to determine whether each said set of adjacent pixels represents a curved surface; and
    (d) disallowing display of the graphic image file when at least one set of adjacent pixels is determined to represent a curved surface.

8.   The method of claim 7, wherein the brightness analysis of

performing step (c) comprises steps of arranging each said set of adjacent pixels into a leading portion, a middle portion and a trailing portion of pixels, and comparing the spectral components of the pixels in the middle portion to the spectral components of the pixels in the leading and trailing portions.

5

9.   The method of claim 7, further comprising steps of:

(e) performing a run length analysis by determining the number of pixels in each set of adjacent pixels classified as possibly representing human skin; and

10

(f) disallowing display of the graphic image file when at least one said set of adjacent pixels has a number of pixels that is greater than a selected percentage of the maximum number of possible adjacent pixels in a row of the graphic image file.

10.   A computer based method for filtering a web page for objectionable content, the web page available from the World Wide Web and having a URL address, text words and at least one graphic image file comprising a number of pixels each having spectral components defined in accordance with a color model,

5   the method comprising steps of:

(a) providing a list of marker terms;

(b) comparing a requested URL for a selected web page with the list of marker terms and disallowing display of the selected web page when at least one term in the requested URL appears in the list of

10   marker terms;

(c) comparing the text words from the selected web page to the list of marker terms and disallowing display of the selected web page when at least one of the text words appears in the list of marker terms;

15   (d) evaluating a graphic image file in the selected web page for the presence of objectionable visual content by evaluating relative weighting of the spectral components of each pixel in turn to classify each said pixel as either not representing human skin or as possibly representing human skin; and

20   (e) allowing display of the selected web page when each said pixel is classified as not representing human skin.

11.   The method of claim 10, further comprising a step of:

(f) disallowing display of the selected web page when at least one pixel is

25   classified as possibly representing human skin.

12.   The method of claim 10, further comprising steps of counting the number of text words from the selected web page, and allowing display of the selected page irrespective of the presence of at least one graphic image file when

30   no term in the requested URL appears in the list of marker terms, none of the text words appears in the list of marker terms and the number of text words exceeds a

predetermined number.

13. The method of claim 10, wherein the spectral components of each pixel are expressed as a set of numbers, each number having an associated numeric value, and wherein the evaluating step (d) comprises steps of:

(d1) generating a set of rules that identify a selected pixel as not representing human skin in relation to the numeric values of the set of numbers; and

(d2) applying the set of rules to the numeric values of the set of numbers for each pixel.

14. The method of claim 10, wherein the color model comprises an RGB color model so that the spectral components of each pixel are expressed as a set of red, green and blue (R, G, B) components corresponding to the respective amounts of red, green and blue in each pixel.

15. The method of claim 14, wherein said pixel is classified as not representing human skin when at least one of the following conditions is satisfied:

the numeric value of the blue component is greater than the numeric value of the red component;

the numeric value of the blue component is greater than the numeric value of the green component;

the numeric value of the green component is greater than the numeric value of the red component;

the numeric value of the green component is greater than the numeric value of the red component;

the numeric value of the blue component is less than one-quarter the numeric value of the red component; and

the numeric value of the blue component exceeds a threshold T.

16. The method of claim 10, wherein the evaluating step (d) further

comprises steps of performing a brightness analysis of each set of adjacent pixels classified as possibly representing human skin to determine whether each said set of adjacent pixels represents a curved surface, and allowing display of the graphic image file when each said set of adjacent pixels is determined to not represent a

5   curved surface.

17.   The method of claim 16, wherein the evaluating step (d) further comprising steps of performing a run length analysis by determining the number of pixels in each set of adjacent pixels classified as possibly representing human skin,

10   and disallowing display of the graphic image file when at least one said set of adjacent pixels has a number of pixels that is greater than a selected percentage of the maximum number of possible adjacent pixels in a row of the graphic image file.

15   18.   The method of claim 10, further comprising steps of:

(f) counting a number v of graphic image files in the selected web page;

(g) performing the evaluating step (d) on each of the v of graphic image files in turn;

(h) identifying a subset w of the v graphic image files having at least one

20   pixel classified as possibly representing human skin; and

(i) displaying the selected web page when w is less than a selected percentage of v.

19.   A data recording medium which stores a software program

25   configured to carry out the method of claim 10 when loaded into computer memory.

20.   A computer system configured to evaluate a graphic image file for the presence of objectionable visual content, the graphic image file comprising a number of pixels each having spectral components defined in accordance with a color model, the computer system comprising:

a general purpose computer having associated programming to:

(a) evaluate relative weighting of the spectral components of each pixel in turn to classify each said pixel as either not representing human skin or as possibly representing human skin;

(b) allow display of the graphic image file when all pixels are classified as not representing human skin; and

(c) disallow display of the graphic image file when at least some pixels are classified as possibly representing human skin.

21.   The computer system of claim 20, wherein the computer system is connected to a computer network and configured to receive web pages from the World Wide Web each having a URL address and each potentially having text words and at least one graphic image file, wherein the general purpose computer is further programmed to:

(d) compare a requested URL for a selected web page with a list of marker terms and disallow display of the selected web page when at least one term in the requested URL appears in the list of marker terms; and

(e) compare the text words from the selected web page to the list of marker terms and disallow display of the selected web page when at least one of the text words appears in the list of marker terms.

22.   The computer system of claim 20, wherein the spectral components of each pixel are expressed as a set of numbers each number having an associated numeric value, and wherein the evaluate step (a) comprises steps of:

(a1) generating a set of rules that identify a selected pixel as not representing human skin in relation to the numeric values of the set of numbers; and

(a2) applying the set of rules to the numeric values of the set of numbers for

5 each pixel.

23. The computer system of claim 20, wherein the color model comprises an RGB color model so that the spectral components of each pixel are expressed as a set of red, green and blue (R, G, B) components corresponding to

10 the respective amounts of red, green and blue in each pixel.

24. The computer system of claim 23, wherein said pixel is classified as not representing human skin when at least one of the following conditions is satisfied:

15 the numeric value of the blue component is greater than the numeric value of the red component;

the numeric value of the blue component is greater than the numeric value of the green component;

the numeric value of the green component is greater than the numeric value

20 of the red component;

the numeric value of the green component is greater than the numeric value of the red component;

the numeric value of the blue component is less than one-quarter the numeric value of the red component; and

25 the numeric value of the blue component exceeds a threshold T.

25. The computer system of claim 20, wherein the associated programming further configures the general purpose computer to perform a brightness analysis of each set of adjacent pixels classified as possibly representing

30 human skin to determine whether each said set of adjacent pixels represents a curved surface, and allow display of the graphic image file when each said set of

adjacent pixels is determined to not represent a curved surface.

26. The computer system of claim 25, wherein the associated programming further configures the general purpose computer to perform a run length analysis by determining the number of pixels in each set of adjacent pixels classified as possibly representing human skin, and disallowing display of the graphic image file when at least one said set of adjacent pixels has a number of pixels that is greater than a selected percentage of the maximum number of possible adjacent pixels in a row of the graphic image file.